Beyond Power and Control: Toward a "Second Order" Family Systems Therapy

Lynn Hoffman

> While in the first quarter of this century physicists and cosmologists were forced to revise the basic notions that govern the natural sciences, in the last quarter of this century biologists will force a revision of the basic notions that govern science itself.
>
> Heinz von Foerster
> *Notes on an Epistemology for Living Things* (33:258)

THE LOST ATLANTIS

When I first encountered the remains of Gregory Bateson's research project in Palo Alto in 1963, I had the sense of stumbling on the ruins of an old and remarkable civilization. In the grip of this conviction, I talked to everybody who had been there. I attended the Thursday bag lunch meetings organized by Don Jackson. As part of the editing job I had been hired by Jackson to do on *Conjoint Family Therapy* (27), I watched Virginia Satir interview families. I ended up begging Jay Haley to let me do a book with him. All the same, I felt that I was merely watching ripples in the wake of a departed genius. I had a keen sense of disappointment about this.

In the ensuing 20 years, I continued to have the impression that I was on some kind of archeological dig, but the time signs were confusing. Was this a Lost Atlantis or a New Jerusalem? Was I unearthing a forgotten empire or helping to build a Promised Land? There was a sense of an evolving outline, but of something already there, the way secret writing is already on the page. Bateson himself noted that people who apprenticed themselves to him were convinced that he knew something that he was deliberately keeping from them. I suspect that Bateson was not only a scientist but a clairvoyant in that he could sense on-coming events before most people had any inkling of what was going on. He had a terrific sense of smell.

By the 1970s, Bateson (3) had become something of a crusader for the integrity of the biosphere. He began to talk more and more about the dangers of "linear" or nonholistic thinking and epistemological errors implicit in ideas of power or control. Although not active politically, he was not above a bit of epistemological consciousness-raising, as evidenced by the 1968 conference at Burg Wartenstein

---

Lynn Hoffman, A.C.S.W., is Faculty, Brattleboro Family Institute, Brattleboro, Vermont, and Ackerman Institute for Family Therapy, New York; Clinical Associate, Psychological Services Center, University of Massachusetts; co-founder, Amherst Family Study Center, Amherst, Massachusetts.

called "The Effects of Conscious Purpose on Human Adaptation," and immortalized in Catherine Bateson's *Our Own Metaphor* (5).

Thinking back, it seems clear that the cold-war years set a pattern that was informed by a fascination with control. Early cybernetic research was connected with experiments with guided missiles and rockets. There was a sense of Faustian expansion, as the new technology was used to investigate the brain and to create brain-like prostheses for the brain. Over the ensuing decades, a division began to build in the field of Cybernetics between engineers involved in research on robotics and artificial intelligence, often underwritten by the military, and a group of visionary researchers that included not only Bateson but colleagues like Heinz von Foerster, Humberto Maturana, Francisco Varela, and Ernst von Glasersfeld.

This latter group shared the belief that the exploitative use of technology, indeed, the entire Western attitude toward science, was based on a false illusion of objectivity. Von Foerster (18) summarized the two positions by comparing a "first order" cybernetics in which the observer remains outside that which is observed with a "second order" cybernetics where the observer is included in the total arc. Varela (23), writing in the same vein, contrasts an "allopoietic" or control model for living systems (the input-output model of the engineers) with an "autopoietic" or autonomy model (living systems respected in the dimension of their wholeness rather than as objects to manipulate).

What is interesting from the point of view of a family theorist is that a similar division erupted back in the late '50s between Bateson and some of his colleagues who were developing the first family therapy models. The articles on families and family therapy that were coming out of Palo Alto were imbued with a vocabulary based on war and adversarial games: "power-tactics," "strategy," being "one-up" or "one-down" (13). This language reflected the dominant value system of Western science, which was an eminently masculine value system in Carol Gilligan's (12) sense. I am often struck by the resemblance between accounts of therapeutic prowess described within this framework to the sexual performance known as "scoring."

Bateson apparently also had reservations about these models of therapy. His chief quarrel with his coresearchers was over what he called the "myth of power." A peculiarity of the debate is that even when these younger theoreticians agreed that efforts to control others only begat more such efforts in "games without end," and subscribed to Bateson's hunch that a small admixture of complimentary or one-down behaviors might halt such progressions, they advocated this position for strategic reasons. Haley argued in *The Power Tactics of Jesus Christ* (14) that Jesus only turned the other cheek to disarm his opponents, and the hallmark of the MRI therapist of that time was the technique of going one-down to be one-up. Thus power was kept as a central core and the masculine value system remained intact. My own thinking was highly colored by this point of view, as anyone reading *Foundations of Family Therapy* (16) can plainly see.

After a long period underground, this debate began to make its way back into the family therapy field. It was sparked off by the March 1982 issue of *Family Process*, which contained three essays by psychologists Bradford Keeney (with Douglas Sprenkle), Lawrence Allman, and Paul Dell. Keeney (21) and Allman (1) used Batesonian arguments to question the use of a narrowly pragmatic framework for family therapy. Dell (10) attacked the concept of homeostasis, long a building block of family systems theory. The placing together of these pieces probably made them seem more like a megatrend than they were. For whatever reasons, the result was

a flurry of scathing dismissals from outraged "pragmatic" therapists. Epistemology was renamed "epistobabble" and from then on there was hardly anyone in the field who did not think they knew what epistemology meant.

In my view, these provocative articles and the overkill reaction to them temporarily dampened the free play of ideas in the field. Especially unfortunate was the support given to anti-intellectuals made nervous by the use of terms like "epistemology." For despite the negative publicity, epistemology is a heart-of-the-matter word. It had a special meaning for the pioneers who put it on the map, among whom were Bateson and the other scientists I have listed.

In using cybernetic principles to investigate the nervous system, these scientists invalidated the field of psychology as we know it. If, as their studies suggest, our perceptions do not represent impressions of an out-there reality but construct this reality in a totally turnabout fashion, psychology would have to find another name: lensology, or the science of lenses, perhaps. Because epistemology already meant the study of how we know our knowing, it was a likely candidate for the job. For family therapists, the ideas around epistemology put into question how almost everybody knew their knowing, and began to point the way to an intellectual revolution that was much more profound than early cybernetic thinking had led any of us to expect.

In the following pages, I will outline what I believe are the consequences of this "new epistemology," or what is being alternatively called "second order" cybernetics, for the family field. From the researchers mentioned above, I will take a number of concepts that carry major implications for systems therapy: the idea of the observing system from von Foerster (33); the complex that includes autopoiesis, informational closure, and conversational domains from Maturana and Varela (23, 32); and the idea of "fit" from the constructivist position of von Glasersfeld (35). Related to all these concepts is Bateson's (3, 4) focus on circular organization which he equated, in some sense, with mental process. I will try to show that the net effect of the new thinking is to point the way to an overall framework for systemic change that is as much as possible nonhierarchical, noninstrumental and nonpejorative. But first I will have to send a herald on ahead, saying, "Enter the Observing System, Center Stage."

MAPS AND TERRITORIES

Let me start with a quote from a current joke: "I have a sea-shell collection. I keep it scattered on beaches all over the world." A sea-shell on a beach is part of an ecosystem. Add the collector, who is speaking, and you have the missing element—the idea in the mind of a person about beaches and shells and their relationship to each other and to her. This is what I mean by saying, "Enter the Observing System, Center Stage."

Heinz von Foerster (34), whose book *Observing Systems* sets this stage, opened an address at a conference I attended with the remark, "Gregory Bateson says, 'The map is not the territory.' I disagree with Gregory Bateson." (Pause, for effect). "I say the Map *is* the Territory!" At the same conference, von Foerster described an encounter with a blind graduate student who was asking his advice with regard to a paper he was working on. In talking about it, the student kept pointing to a spot on the wall behind von Foerster's head. Von Foerster asked, "Why do you point to the wall when you refer to your paper?" The student said, "Because my office

is next door and my paper is on the desk against that wall." So von Foerster observed to the audience that, in this instance, the man who was blind could "see," where he, von Foerster, was blind.

Von Foerster's thesis, derived from research on neural nets, is that learning is not a mapping of outside objects into some location in the brain but is a way that the organism computes a stable reality. Von Foerster's studies showed that neural nets do not encode little pictures of scenes or objects but merely register edges or sharp transitions, not only at sensorial surfaces but at any level within the brain. This research, of course, offers prestigious backing to Bateson's (3) definition of information as news of a difference, since it implies that all the splendid visuals of our minds are formed from these totally contentless little blocks.

One could say, then, that the brain builds up invariances which are then seen as solid objects and ascribed to an objectively experienced world-out-there. One way to think about this process, as I see it, is to compare it to a person doing a rubbing of a gravestone. As the crayon goes back and forth across the paper, darker and lighter patches appear until a coherent picture takes shape. But this type of metaphor breaks down if you then extend it to mean that there are really gravestones out there to rub. The best we can do is to find someone else who perceives gravestones and will confirm our perception. This is why von Foerster defines reality as a "consistent frame of reference for at least two observers." Our ideas about the world are shared ideas, consensually arrived at and mediated through givens like culture and language.

Maturana, agreeing with von Foerster, takes the position that "anything said is said by an observer" (23:8). For him, the term "objectivity" is always in quotes. Maturana arrived at this view through research on the physiology of vision. A series of experiments with color vision in the frog prompted him to challenge the accepted notion that there was a correlation between the perceived object and what the retinal cells received. Not finding the expected correspondence, his coresearchers had decided that the experiment with the frog was a failure. But Maturana posed the question to himself: Suppose there is really no correspondence? Suppose the retinal cells are activating the brain cells in a closed internal loop? Suppose this signaling goes on entirely within the nervous system, with no input from outside but a kind of general triggering? What then?

What then, indeed! The conventional way of thinking about perception and the operation of the nervous system would have to be completely thrown away. No longer could you describe an act of perception in terms of a little print being processed by the brain. Moreover, there would be no way to be sure that what we think we see is actually there.

With this idea in mind, Maturana devised an experiment with a newt: He rotated the newt's eye 180 degrees, then set a moving insect in front of it. The newt jumped completely around and attempted to pick up the insect as if it were behind it. Repetitions of the experiment made it clear that the newt would starve before it would discover where the insect really was. This seemed like a compelling proof of the self-enclosed nature of the nervous system that Maturana had postulated.

These and similar experiments led Maturana and his colleague, Francisco Varela, to ask: "*What is the organization of the living?*" (23:xii). Their answer: Living systems are like homeostats where the organization of the entity is itself the critical variable that has to remain constant. The components may change many times over, as happens when body cells die and renew themselves, but the identity of the

unit—which is the same thing as its organization—remains the same. Maturana and Varela wished to give a name to this process. They thought of using the term "circular organization" straight out, but changed their minds in favor of "autopoiesis," a term Maturana invented out of two Greek roots: from auto (self) and poiesis (creation, production) (p. xvii).

Autopoiesis describes a biological unit not as a material entity exchanging matter and energy with its environment (which it also is) but as an information system which is operationally closed and folds recursively back upon itself. To illustrate what he means, Maturana uses the analogy of the pilot who makes a blind landing:

> What occurs in a living system is analogous to what occurs in an instrument flight where the pilot does not have visual access to the outside world and must function only as a controller of the values shown in his flight instruments . . . When the pilot steps out of the plane he is bewildered by the congratulations of his friends on account of the perfect flight and landing that he performed in absolute darkness. He is perplexed because to his knowledge all that he did at any moment was to maintain the readings of his instruments within certain specified limits, a task which is in no way represented by the description that his friends (observers) make of his conduct. (23:51)

Maturana would say that living organisms are always making blind landings, even though we are exchanging information with the outside world all the time. Then how does he describe how we, as informationally closed Helen Kellers, ever manage to communicate at all? Interestingly. He speaks of *structural coupling*, a process that seems to me to resemble a blindfold jumprope game. It is as if (informationally speaking) we never "touch." All we can do is generate trajectories, invisible to us, that are mutually constraining and whose connections show up on our instrument panel. A baby and a mother shape each other in such a way that one day the mother puts the baby on the pot and the baby performs. This continues to happen. The mother says, "I toilet trained my baby." The baby says (perhaps) "I toilet trained my mother." The pair are, in this example, structurally coupled. One system has got together with another in what Maturana calls consensual validation of consensual validation.

Thus, all communication is necessarily indirect. In the movie *Close Encounters of the Third Kind* you have a good example of this. The earth people and the space people are trying to solve the problem of communicating when neither group knows whether the others are intelligent beings or how to arrive at a common language for determining that. The space people, who presumably have a highly developed sense of harmonics, emit a series of musical notes and wait. The earth people emit the same series back. The space ship explodes in a burst of jubilant noise, and the earth people jump up and down. Communication has not been established, but communication *about* communication has.

A corollary of this position is that you can have no "instructive interaction" in the sense of placing little packets of information into the heads of other people, or receiving such packets in turn. You cannot buy a round-trip ticket to the outside world, the way you can go to a foreign country, buy something and bring it back. You can only buy a ticket to a loop inside your head. This is why Maturana, when he lectures about his theories, always puts an eye in profile on the upper corner of his blackboard. He is reminding us that objectivity is literally in the eye of the beholder.

Here one might ask: How do we link up this isolationist view, in which the biological unit is cordoned off, with Bateson's description of mental process as organism-plus-environment? In other words, how do we get "autopoiesis" and "mental process" to jibe? Varela (32) is in a good position to help us with this issue, since he worked closely with both men: Maturana in Chile and Bateson at Southampton, Long Island. He has been somewhat more concerned than Maturana to find a way to generalize the concept of autopoiesis (which, strictly speaking, only describes biological organisms) to systems representing larger orders of inclusion. To do this, he offers the term "autonomous system" (32:53). An autonomous system is any composite unity formed of elements that may or may not themselves be autopoietic. Varela includes in this category not only social groups like the family, managerial systems, nations and clubs, but organs like the brain and ecological aggregates like beehives.

In describing the processes of interaction that define these aggregates, Varela begins to get close to the definition of mental process which Bateson offers: "Mind is generated whenever the appropriate circuit structure of causal loops appears" (3:482). However, Varela chooses an interestingly different term: "conversational domain."* In explaining this term, he states that there is mind in every unity engaged in conversation-like actions, however spatially distributed or short-lived. He is moving toward defining higher order unities not only as groups of material bodies but groups or ecologies of ideas, enabling one to include items like the plays of Shakespeare, Chartres cathedral, and psychotherapy.

Basically, Varela brings in a controversial notion: that at a level above our own individual minds there is mind-like activity, and that higher-order unities at this level, though not directly accessible to consciousness, are instances of autonomous systems. In this way he uses the idea of conversational domains to deny the possibility of solipsism and to bring us out of isolation:

> Thus we do not have, by necessity, a world of shared regularities that we can alter at whim. In fact, the act of understanding is basically *beyond our will* because the autonomy of the social and biological systems we are in goes *beyond* our skull, because our evolution makes us part of a social aggregate and a natural aggregate which have an autonomy compatible with but *not reducible* to our autonomy as biological individuals. This is precisely why I have insisted so much on talking about an observer-community rather than an observer; the knower is not the biological individual. Thus the *epistemology of participation* sees man in continuity with the natural world. (32:276)

THE PROBLEM CREATES THE SYSTEM

How do these new ideas affect family systems work? For one thing, the treatment unit looks vastly different than it did before. The old idea of treating a psychiatric symptom was based on the medical notion of curing a part of the body. The illness is "in" some spatially defined, out-there unit. We can no longer say that it is "in" the family, nor is it "in" the unit. It is "in" the heads or nervous systems of everyone who has a part in specifying it. The old epistemology implies that *the system creates the problem.* The new epistemology implies that *the problem creates the system.* The problem is whatever the original distress consisted of plus whatever the distress

*This concept reflects research by scientists like Gordon Pask on Conversation Theory and Linde and Goguen on Discourse Analysis. (Varela, 1979, p. 269)

on its merry way through the world has managed to stick to itself. You have to think of some kind of infernal tar baby or gingerbread man. The problem is the meaning system created by the distress and the treatment unit is everyone who is contributing to that meaning system. This includes the treating professional as soon as the client walks in the door.

This position has been supported recently by Harlene Anderson and Harry Goolishian (2) in their discussion of the problem-oriented system. Goolishian (personal communication, 1985) also makes a case against the prevailing emphasis on dividing therapy into individual, couple or family treatment. His reason is that as long as we use a framework based on social units, we fall into a linear mind-trap. If it is an organization, it can be dysfunctional. If it is dysfunctional, it contains pathology. If it contains pathology, we can go ahead and cure it. This brings us inevitably back to the old epistemology and the dichotomy between the person who fixes and the person who is being fixed.

What we are basically challenging here is the representation of the family as a cybernetic system. This impression was fostered by the writings of general systems theorists like James Miller (24), who posited an amoeba-like model for living systems that applied at any level on the Great Chain of Inclusiveness: cell, organ, organism, group, organization, society. This view, which first made its appearance in the family field in Don Jackson's "The Question of Family Homeostasis" (19), is a good example of "first order" cybernetics since it tended to set up the family as an allopoietic machine, in Varela's sense, which can be programmed or controlled from outside.

This homeostatic model of the family has been heavily criticized in recent years (8, 10) on both philosophical and pragmatic grounds. For me, trying to move to an appreciation of "second order" cybernetics, the idea of the family as a system was the greatest possible stumbling block. Not only did it put a cut between the observer and the observed, but it was an extremely pejorative formulation, as many a family that has been blamed for the condition of a troubled child has found out to its sorrow (more of that later).

One way out of this difficulty is to think of therapy in terms of a conversational domain. In that case, we would no longer be focusing on the client as the unit of attention, but would see the entire group, family plus other professionals, as a small, evolving meaning system. I think that Jeffrey Bogdan's "Family Organization as an Ecology of Ideas" (8) is a very useful contribution here and moves us toward the concept of a conversation. However, I don't believe he goes far enough. I would prefer the formulation that the *problem* is an ecology of ideas and dismiss the thought that what comes in the clinician's door is ever a family organization per se.

This change in the idea of the treatment unit is only the beginning of a chain of changes. Next to go is the treatment structure as traditionally defined. In explaining what I mean, I will have to expand my discussion to include Bateson's concept of cybernetic circularities and the translation of this idea into clinical terms by the Milan Associates.

LILIES OF THE FIELD

By the time Varela and Bateson met in Lindisfarne in the '70s, Bateson was proposing a position in regard to living systems that had ethical and spiritual over-

tones. Although initially interested in the workings of circular causal systems like the famous thermostat in a narrow, "first order" sense, Bateson (3) had moved to a consideration of what he called the unit of evolution: DNA-in-cell, cell-in-body, body-in-environment. All such sequences, as we have seen, Bateson subsumed under the rubric of "mind," which he felt was immanent not only inside the body but in the networks of connecting channels outside the body, reaching out to the entire planetary ecology.

Bateson warned against the human propensity for controlling social and environmental outcomes and in so doing to ignore the loop structure of this larger unity. He saw most of our worst errors coming from this tendency. For him, the concept of what he called "cybernetic circularities" included an awareness of this tendency, as well as an appreciation of the nonlinear, equal participation of all elements in this bootstrap description of the processes of life.

There are also ethical considerations in Varela's distinction between an allopoietic or "control" model for living systems and an autopoietic or "autonomy" model. The first model lends itself to concerns of purpose, power and control. You can program it; you can instruct it; you can change it. The second reflects the Biblical saying: "Consider the lilies of the field; they sew not, neither do they spin." The process of the entity is formally identical with its product, which is the maintenance of its identity. You can't control it from the outside or program it (no instructive interaction, remember?) but you can, as these scientists say, perturb it and see how it compensates. Or, as I say, give it a bump and watch it jump.

Bateson (5) makes a different, if related, distinction between models for living systems: systems seen as distributions of energy (bioenergetics) and systems seen as distributions of information (entropy reduction systems). In the former case, one is concerned with the flow-through aspect of energy across a spatial boundary. In the latter, one is concerned with ecologies of ideas that have no material borders. I think that we are dealing with a gestalt switch in the sense that if one thinks "this is particle" one cannot think "but it is a wave" at the same time.

It may be that Varela's distinction between allopoietic and autopoietic systems is an artifact of the same gestalt switch. The danger arises when one gets inappropriately stuck in one or the other view. I think one value of the concept of autopoiesis lies in its function as a corrective to believing solely in a "particle world" that one can remain apart from and above. Stafford Beer, in his preface to *Autopoeisis: The Organization of the Living*, takes the matter even further:

> It seems to me that the architects of change are making the same mistake all over the world. It is that they perceive that system at their own level of recursion to be autopoietic, which is because they identify themselves with that system and know themselves to be so; but they insist on treating the systems their system contains, and those within which their system is contained, as allopoietic. (6:72)

It is in this sense that I think Varela and Maturana's ideas have ethical overtones, and it is certainly on this issue that Varela and Bateson connect.

By the late '70s, mainly due to the emergence of ideas such as these, I had become dissatisfied with the existing systems approaches to family therapy. They were extremely control oriented, and I could not connect them with Bateson's thought at all. It was at this time that I first became aware of the work of the Milan Associates: Mara Selvini-Palazzoli, Guiliana Prata, Luigi Boscolo and Gianfranco

Cecchin (28). This group, which formed in 1967, had initially been very influenced by the ideas coming out of Palo Alto and they became increasingly interested in Bateson's views. They had done their Bateson reading conscientiously and had applied to clinical practice ideas that were, for most people, forbidding abstractions.

The concept of circularity is a case in point. Inspired by the many ramifications of this concept, the Milan team came up with a characteristic style of interviewing (circular questioning), a characteristic assessment process (hypothesizing), and a characteristic therapeutic stance (neutrality) (29). Their work also embodied what you might call a "circular" structuring of the therapeutic enterprise. Taking the egalitarian implications of the idea literally, they applied it to social relationships within the team. They substituted position for hierarchy, believing that the place you stand (behind the screen, in the room) determines what you can do and see more than your status or degree. And by constantly shifting trainees' places, they showed them that both positions are part of being in an observing system, in a quite literal sense.

The relationship between team and client was also defined as relatively nonhierarchical; again, position defined the difference, not power. Implicit in this treatment stance was a bias against intrusive interventions. The therapist seldom made an interpretation except at the end of an interview and even then it was an opinion, a point of view among many others. A ritual directive might be given but if the family did not carry it out, this was simply accepted as feedback about how the system worked. Thus there was seldom a confrontation or an escalation. The team simply wove any response, even a hostile or challenging one, into an extended hypothesis that was always changing.

This noninstrumental tendency seems close to the way one would deal with other living beings if one believed, as Maturana and Varela do, that they were informationally closed, autopoeitic unities. In this sense, the Milan approach reminds me of the movie *The Extra-Terrestrial.* To try to reshape a family according to one's normative ideas of what a family should be like would seem as wrong in this model as it was for the doctors and researchers in the movie to assume that E.T.'s life system was like our own and would respond in the same way to heart machines and respirators.

The Milan Method has continued to evolve in this direction. In 1978, after the original team split up, Boscolo and Cecchin began to take an even less instrumental position, arguing that the circular questioning they were developing was an intervention in itself, and that the team message at the end of the interview was not needed (9).* Second generation teams in Europe and North America have gone even further. For one thing, there has been a conscious effort to counteract the implicit power imbalance between therapist and family that is set up by having a team that confers invisibly behind a screen. Tom Anderson (personal communication, 1985) of Tromso University in Norway is asking the family at the end of the session if they would like to listen to the discussion of the team. If they agree, family and therapist watch while the team, which he calls a "reflecting team," considers different points of view without having prearranged strategies built into the debate. Taking

*As far as I know, Boscolo and Cecchin have been influenced in a more formal and conscious way by the teachings of "second order" cybernetics than Selvini-Palazzoli and Prata, who have been researching family systems using a powerful clinical tool in the form of an "invariant prescription." Since this work has not yet been fully reported on, I cannot comment on their current position and hope that they will forgive me if I seem to ignore the significance of their present thinking in this piece.

the same tack, Tom Russell and Gerry Lane (22) of the Institute for Systemic Studies in Atlanta have been limiting their final intervention to a nonjudgmental description of the way the problem system works, which they call "circular replication."

More generally, early Milan techniques such as prescribing the sacrifice of the child in the service of the parents were felt to carry too great a negative connotation and have been dropped, as has most of the paraphernalia around "paradoxing" families. These methods seem to be holdovers from the more strategic Palo Alto days. The practice of positively connoting the impasse of a therapist who is asking for a consultation has also proved to create a negative effect and to evoke a power differential between therapist and consultant. In an effort to counteract this problem, Peggy Penn and Marcia Sheinberg (26) of the Ackerman Institute for Family Therapy in New York have developed a consultation method that takes care not to disempower the therapist. Overall, the trend has been toward dismantling some of the cumbersome technology of the original Milan Method and moving toward a format that sets more equality between family and team.

This leads into another consequence of "second order" cybernetic thinking for therapy. If we abandon the expert-dummy model, we have to throw away the idea of diagnosis as well. We have to see the extent to which a preoccupation with finding the cause and location of a problem in some out-there unit itself contributes to the problem. The emphasis shifts from a concern with the etiology of the problem to a concern with the meanings that are attached to it. I believe that von Glasersfeld's (35) constructivist model, with its emphasis on the collective premises that underlie behaviors, can be helpful here. Let me elaborate in the next section.

STICKS AND STONES

Although it is clear that ideas and behaviors are two sides of the same coin, it makes a difference which category is emphasized in therapy. In family therapy, perhaps because of a reaction against the intrapsychic focus of psychodynamic theory, the emphasis has been on changing behaviors insofar as they are seen as part of a dysfunctional family system. The pendulum seems to be swinging the other way. Mental phenomena have been brought back from a long exile, and ideas, beliefs, attitudes, feelings, premises, values and myths have been declared central again.

This is where the constructivist view comes in. Von Glasersfeld (35) holds that we do not "discover" the world-out-there but, on the contrary, "invent" it. Knowledge, in fact, reflects the coupling between organism and environment that ensures its viability. For this reason it is not as important that our constructs *match* with items in the environment as that they *fit* sufficiently to ensure survival. For instance, von Glasersfeld says, a bricklayer might begin to believe that all openings in walls require an arch. It does not matter if this is true or false; what matters is that in a world where houses are made of bricks, that premise is part of the fit between the builder and his environment.

Paul Watzlawick (36) compares this concept to a pilot navigating a difficult channel at night. If the pilot does so and gets through safely, he has found a fit. It does not matter if in the morning he looks back and sees that he missed the safer or shorter channel which would have represented a better match. In this view, a miss is as good as a mile. The analogy does not really hold up, of course, in that

neither we nor the pilot can ever know "the way things really are." All we can know is the operation of remaining viable.

Here the sophisticated reader may well say, "Wait. Psychological concepts based on the social construction of reality have been around a long time, witness the work of personality theorist George Kelly, the sociology of knowledge of Berger and Luckman, and the extensive literature on attribution theory" (7, 15). And I would have to add, "Yes and many schools of family therapy subscribe to the idea that the therapist is in the business of altering the client's perception of reality." So what is new?

What is new is the extensive philosophical tradition that von Glasersfeld acknowledges, from Kant and Vico to Wittgenstein and Piaget. I would also add the recent advances in cybernetic biology and cognition that I have been mentioning, which furnish a substrate of scientific research that the social construction theories of American social psychology did not have.

Another difference lies in adding the concept of the observing system. The notion that a therapist must deliberately set out to change the belief system of the client is a common one. The danger is that the therapist will forget about the assumption of fallibility built into the fact that we are all observing systems, and that there is a Heisenberg Uncertainty Principle of Human Relations to which we cannot not subscribe. For a therapist to believe that it is his/her job to know how to change the reality of the client is to overlook the possibility that this opinion is itself a reality that needs to change.

And why should it change? Because the socially legitimized treatment of psychiatric problems is itself a prime example of constructing a social reality. Diagnosis of so-called mental illness, in our society at least, is always pejorative, unlike diagnosis of a biological condition. And here the children's verse "Sticks and stones can break your bones but names can never hurt you" must be questioned. Names, to the contrary, can often maim and sometimes kill. Attributing blame for a distressing condition to a person or group almost always reinforces or heightens that condition. Mental illnesses are indeed mental, in that they are at least 90% made up of blame, or causal attributions that are felt as blame. Many family therapists hold the opinion that nobody can leave the field under a negative connotation. I would add that neither can they change under a negative connotation—at least not easily.

I suspect that this fear of negative connotation has to do with the attributions of blame that are such a signature of problem systems. Blaming processes are ubiquitous forms of mutual causal cycles between humans, witness the scapegoating by such groups of a special member, or the symmetrical warfare between couples both of whom are convinced the other is victimizing them. The politics of family life are intensely connected to the fearsome power of collective attributions because of the threat they pose; one defense against them is to form coalitions that can create counterattributions, or simply counterblocs.

In an article entitled "Changing the Family Mind," psychologist George Howe (17) applies cognitive social psychology to family therapy in just this sense. Howe points out the many moves by family therapists that are directed toward altering or shifting ideas that have to do with perceived responsibility for problems. These interventions work by challenging perceptions of causation (oriented to the past) as well as patterns of expectancy (oriented to the future). Howe cites techniques such as unframing family beliefs, reframing linear beliefs, and moving family members toward positions of shared responsibility and mutual cause. These are all ways

to cut into the negative attributions that in their extreme can endanger the life and/or sanity of any person who in this fashion is being thrown outside the social pale.

But it is not enough to stop with a technique of intervening upon intrafamily attributions and the politics that support them. If we take our observing system stance seriously, we have to decide that the treatment context is part of an attribution of fault that goes with the territory. It is not for nothing that the phenomenon of resistance is common to all discussions of psychotherapy because it is next to impossible not to experience a request for change—even a self-imposed one—as a statement that something is wrong with one. So how does the treating professional cope with the puzzle that the very operation of offering to change people gets in the way of so doing?

Here is where the entire technology of "paradox" comes in—symptom prescription, restraint from change, positive connotation, and so forth (16). They work, I believe, not because the client has a defiant streak that has to be dealt with by indirect suggestion, but because these are all ways the therapist tries to remove the attribution of fault buried in any attempt to elicit change, thus allowing clients the freedom to explore their own alternatives. The danger in using these moves purely as a technology is that the therapist then operates from within a strategic mind-set. The message "this is really to get you to change" will be beamed at the client in all kinds of nonverbal and analogic ways, radiating negative attributions as it goes and obscuring for the clinician the awareness of observing system factors.

Another useful stance in puncturing negative attributions is the assumption that goes with the model of circular organization. If there is no first horse on the merry-go-round, it follows that we cannot isolate a cause or an etiology for a problem or condition except as an artifact of our own observation. This recursive or "bootstrap" model for describing human systems finds an elegant expression in the hypothesizing process of the Milan Method. What best describes the rationale of this process is von Glasersfeld's distinction between "fit" and "match," mentioned earlier. In a Milan-style interview, there is no attempt to find the "truth," only successive approximations to an explanation that will fit the most amount of data together in the service of a meaningful idea. This collaborative investigation of the problem, whose outcome is merely provisional and hypothetical, takes the place of the usual diagnosis applied by an expert.

A different way of challenging the concept of diagnosis is provided by the Palo Alto doctrine of inadvertent addiction to problem-maintaining behavior. The group at the Mental Research Institute notes that problems are often kicked off by some chance event, but then, instead of dying out, are reinforced by attempts to alleviate them, as in the famous injunction "Relax" to a nervous person (11). Soon—due, I believe, to the negative attribution implicit in this type of injunction—it is the solution that has become the problem. "Relax" becomes equated with "You are bad" and the person injuncted becomes more tense than ever. The Palo Alto group gives us ways to avoid this effect.

I would like to say one final thing about this emphasis on meanings rather than behaviors. Traditional family models have tended to focus on altering "objectively" perceived facets of behavior: interaction patterns, dysfunctional family structures, and the like. These models stay within an observed system framework. If one moves to an observing system framework, one becomes immediately interested in what Bateson (3) thought of as *premises*—shared ideas held collectively by family members that are laid down at a deep structure level and operate at a higher level of abstraction than particular behaviors.

However, if one is looking for a premise that would explain the presence of a problem, one has to be clear about the nonobjectivity not only of the family's perceptions but of the observers' constructions of those perceptions. A premise cannot always be verbalized but is often expressed through pantomime, so to speak, in analogic actions and in feeling-states. If the observer does put one into words, it is merely a guess, and has no validity unless the family takes it up and confirms it. This gives the development of a hypothesis during a family interview the quality of a construction that therapist and family create together.

Many Milan interventions start by describing a premise ("In this family, it seems that the parents feel that they have to be perfect," "Men are always the protectors of women," "Children feel that their parents are vulnerable," etc.). If a premise falls by the wayside, many subcategories of behavior may topple, too. It seems to me that reframing has long been used to alter premises, but has not been given that explanation. In the same way, a task involving behavior change may also hit a premise, witness the Palo Alto strategy of asking a perfectionist to make deliberate mistakes.

The person who is currently doing the most innovative thinking in regard to family premises is Peggy Penn. In her paper "Feed Forward: Future Questions, Future Maps" (25), she takes a premise and pushes it into a hypothetical future, thus unlatching it from a fixed context and projecting it onward in time, where it is not fixed. The difference between this type of operation and a reframing operation is not always obvious, but I believe that there is much less of a conviction that the therapist is doing something to or for a client in the sense of designing a strategy for change, and much more of an emphasis on creating a perturbation that may or may not have an effect. Thus the Uncertainty Principle of Human Relations is always kept firmly in mind.

TOWARD A "SECOND ORDER" FAMILY SYSTEMS THERAPY

A young architect in a family I had seen once told me that he had led a workshop at a conference and that he had tried to work the way I do. I asked what that was. He said, "Shedding power." I have pondered that phrase a lot since then, and although I don't know exactly what it means, I feel it has something to do with how one goes about influencing people within a "second order" cybernetic model. You don't, strictly speaking, influence *people*—you only influence the *context*, maybe the only part of which you can control is yourself.

What I am describing here is not a method of therapy but something more like a stance. The new paradigm—the one that Bateson set out in hauntingly eloquent terms—does not specify any particular way of working but contributes a set of guidelines for how we put the methods we do use into practice. From my point of view, then, any therapy that respects a cybernetic epistemology will tend to have the following characteristics:

1) An "observing system" stance and inclusion of the therapist's own context.
2) A collaborative rather than a hierarchical structure.
3) Goals that emphasize setting a context for change, not specifying a change.
4) Ways to guard against too much instrumentality.
5) A "circular" assessment of the problem.
6) A nonpejorative, nonjudgmental view.

This does not mean, however, that we do not also live in what Bateson thought of as a Newtonian world of forces acting upon things. Although it is more correct to say that one is always acting within both a "second order" and a "first order" cybernetics, I prefer to simplify and say, "Render unto Newton the things that are Newton's." Nonneutral, "linear" attitudes and actions are often 1) necessary, 2) appropriate, 3) what you are being paid for. Coercion, bullying, seduction and force are time-honored ways of bringing about results, particularly when fragile bodies must be protected from harm. Of course, sending child molesters to jail or taking abused children out of the home does not alter the recipe for abuse handed down to the next generation and the next. However, the first order of priority is protecting human life and rights. The only rule is to be clear about which hat one is wearing, a social control hat or a systemic change hat.

Another point is that one cannot be neutral and be a parent, a teacher or a policeman. One has to be free in these roles to say, "This is right and wrong," and to make moral judgments. The Milan group will, for this reason, not include persons in these roles behind the screen as part of the team, and will say, when necessary, "Call the police. Use the hospital. Set up a suicide watch" (9).

The same thinking applies to social or political reform. The Milan point of view has been objected to by feminists like McKinnon and Miller (24) on the grounds that you cannot attack social injustice without reference to power issues and without giving up "neutrality." I agree. However, this brings up a question: Is there such a thing as a "second order" feminism, and if so, what would it be like? Feminism, like most activist movements, has yet to take advantage of the insights of cybernetics; in my view it would be immensely strengthened if it did.

Another important reminder is that if neutrality, positive connotation, and systemic thinking become a way of life, the differences out of which systemic thinking arises are inhibited. I know one group that in the attempt to be neutral and connote everything positively, began to distrust each other, and to long for a more open exchange. This is why, during a team discussion, it is important to start with linear points of view and move to more circular ones later.

A "second order" approach also promotes a high tolerance for difference. Although I work within a Milan "systemic" framework, I feel comfortable about incorporating methods from other therapeutic schools as long as I can be clear about what I am doing and why.* I work at present with an Ericksonian hypnotherapist in the room, and actively pursue hypotheses with my cotherapist and with the family in a reasonably straightforward manner. Except for training purposes, I find that the use of a team behind a screen tends to make too big a cut between the therapy group and the family group and promotes a power ethic unawares.

One further idea that I will explore in a companion piece to this one, but would like to mention here, is the application of Francisco Varela's (31, 32:99) system of Star Logic to the therapeutic process, believing that it gives us a new way to describe the oscillations that Bateson called double binds and points to a methodology that consists of moving to a wider complementarity.

More generally speaking, I see the contribution of family theory to date as a kind of Part One of a larger enterprise. It's as though my first 20 years in the family

*The term "systemic" (taken from Bateson) was originally used by the Milan Associates to describe their work. However, it has been adopted by many other practitioners whose work has a cybernetic base. It has also been used by Sluzki (30) and Keeney (20) to encompass structural, strategic, and interactional schools as well as Milan, as in "the systemic therapies."

therapy movement were spent in the foothills. The mountain has turned out to be much larger than I had thought. The view from its slopes shows me that the scientific community is moving from a base metaphor clustering around energetics to a base metaphor clustering around cybernetics. Linked to this shift is the move from a behavioral to an imaginal framework—Platonic ideas reborn in cybernetic guise.

In light of this framework, the term "family therapy" is rapidly becoming incorrect. It is less and less possible to use a medical analogy for so-called psychiatric problems. These problems fall more into the category of spells—collective illusions that must be dispelled rather than biological or social units that must be healed. According to this view, a problem is best described as an ecology of thought in which living systems at several levels generally take part.

The future, according to my guess, will see the further delineation of problem systems in their human context, and far less focus on the family, extending the basic position of the Mental Research Institute. In addition, I predict a move away from the highly instrumental "first order" models, whether we are talking about an overtly directive authoritarian mode or a covertly directive strategic one. Here is where I think the Milan Method, with its inclusion of the observing system, has offered a much needed reform.

The major difference, for me, between Part One and Part Two is in the general direction of stepping down from the dictum that one must produce a change. The position of the Palo Alto researchers was to challenge the nondirective position of the psychoanalytic establishment. Giving technology a vote of confidence, these pioneers maintained that one should go to a therapist the way one goes to a mechanic to fix a car. Nowadays, this analogy does not seem so tenable.

However, in warning about technology, I do not advocate a Greenpeace family therapy, or some kind of vague family therapy Buddhism. Despite the growing consensus that objective reality does not exist, as long as we have Western science and Western minds we will always be asking: How is it built? How can it change? A virtue of the recent research in the cybernetics of cognition is that it does elucidate "the organization of the living." As we better understand that, we also understand the processes associated with change in these organizations, if only to declare what they are *not.* Chief of the insights coming from this knowledge is summed up in Maturana's radical statement that in the world of the living there can be no instructive interaction. That opinion, more than any other, will probably resonate in the field of systems therapy for a long time to come. It is up to us, now, to find a noninterfering, nonpurposive vocabulary for change that respects this way of being organized. We need to think of each other as if we were all E.T.s.

REFERENCES

1. Allman, L. The aesthetic preference. *Family Process, 21*, 43–56, 1982.
2. Anderson, H., Goolishian, H., Pulliam, G., & Winderman, L. The Galveston Family Institute: Some personal and historical perspectives. In D. Efron (Ed.), *Developments in strategic and systemic therapies.* New York: Brunner/Mazel, in press.
3. Bateson, G. *Steps to an ecology of mind.* New York: Ballantine, 1972.
4. Bateson, G. *Mind and nature.* New York: E. P. Dutton, 1979.
5. Bateson, M. C. *Our own metaphor.* New York: Alfred A. Knopf, 1972.
6. Beer, S. Preface. In H. Maturana & F. Varela, *Autopoiesis and cognition.* Dordrecht, Holland: D. Reidel, 1980.
7. Berger, T., & Luckman, P. *The social construction of reality.* New York: Doubleday, 1966.

8. Bogdan, J. Family organization as an ecology of ideas. *Family Process, 23*, 375–388, 1984.
9. Boscolo, L., Cecchin, G., Hoffman, L., & Penn, P. *Consulting with human systems*. New York: Basic Books, in press.
10. Dell, P. Beyond homeostasis. *Family Process, 21*, 21–42, 1982.
11. Fisch, R., Weakland, J., & Segal, L. *The tactics of change*. San Francisco: Jossey-Bass, 1982.
12. Gilligan, C. *In a different voice*. Cambridge: Harvard University Press, 1982.
13. Haley, J. *Strategies of psychotherapy*. New York: Grune & Stratton, 1963.
14. Haley, J. *The power tactics of Jesus Christ*. New York: Grossman, Publishers, 1969.
15. Hewstone, M. *Attribution theory: Social and functional extensions*. Oxford: Blackwell, 1983.
16. Hoffman, L. *Foundations of family therapy*. New York: Basic Books, 1981.
17. Howe, G. Changing the family mind. Paper presented at The Fourth Annual Symposium on Family Therapy at the University of Tennessee, Knoxville, November 1984.
18. Howe, R., & von Foerster, H. Cybernetics at Illinois. *Forum, 6*, 15–17, 1974.
19. Jackson, D. D. The question of family homeostasis. *Psychiatric Quarterly Supplement, 31*, 79–90, 1957.
20. Keeney, B., & Ross, J. *Mind in Therapy*. New York: Basic Books, 1985.
21. Keeney, B., & Sprenkle, D. Ecosystemic epistemology. *Family Process, 21*, 1–21, 1982.
22. Lane, G., & Russell, T. Circular replication: A systemic intervention. Paper presented at The Fourth Annual Symposium on Family Therapy at the University of Tennessee, Knoxville, Tennessee, November 1984.
23. Maturana, H., & Varela, F. *Autopoiesis and cognition*. Dordrecht, Holland: D. Reidel, 1980.
24. Miller, J. *Living systems*. New York: McGraw-Hill, 1978.
25. Penn, P. Feed-forward: Future questions, future maps. *Family Process, 24*, 299–311, 1985.
26. Penn, P., & Sheinberg, M. A systemic model for consultation. In L. Wynne (Ed.), *Consultations*, in press.
27. Satir, V. *Conjoint family therapy*. Palo Alto: Science & Behavior Books, 1967.
28. Selvini-Palazzoli, M., Boscolo, L., Cecchin, G., & Prata, G. *Paradox and counter-paradox*. New York: Jason Aronson, 1978.
29. Selvini-Palazzoli, M., Boscolo, L., Cecchin, G., & Prata, G. Hypothesizing-circularity-neutrality: Three guidelines for the conductor of the session, *Family Process, 19*, 3–12, 1980.
30. Sluzki, C. Process, structure and world views: Toward an integrated view of systemic models in family therapy. *Family Process, 22*, 469–476, 1983.
31. Varela, F. Not one, not two: Position paper for the Mind-Body Conference. *Co-Evolution Quarterly*, 62–67, 1976.
32. Varela, F. *Principles of biological autonomy*. New York: North-Holland Press, 1979.
33. von Foerster, H. *Observing systems*. Seaside, CA: Intersystems, 1981.
34. von Foerster, H. Plenary address. Presentation at the Sixth Biennial MRI Conference: Maps of the Mind: Maps of the World, San Francisco, 1983.
35. von Glasersfeld, E. An introduction to radical constructivism. In P. Watzlawick (Ed.), *The invented reality*. New York: W. W. Norton, 1984.
36. Watzlawick, P. *The invented reality*. New York: W. W. Norton, 1984.

Requests for reprints should be sent to Lynn Hoffman, P.O. Box 400, Amherst, MA 01059.